

1            **RELATED APPLICATION**

2            This application is related to U.S. Patent Application Serial No.  
3            10/783,343, entitled "Systems and Methods for Parallel Evaluation of  
4            Multiple Queries" by the Applicants named herein, filed February 20, 2004.

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6            **TECHNICAL FIELD**

7            The systems and methods described herein generally relate to query  
8            processing using a filter engine opcode tree and, more particularly, to systems and  
9            methods for updating a filter engine opcode tree.

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11            **BACKGROUND**

12            Computing systems - i.e. devices capable of processing electronic data such  
13            as computers, telephones, Personal Digital Assistants (PDA), etc. - communicate  
14            with other computing systems by exchanging data messages according to a  
15            communications protocol that is recognizable by the systems. Such a system  
16            utilizes filter engines containing queries that are used to analyze messages that are  
17            sent and/or received by the system and to determine if and how the messages will  
18            be processed further.

19            A filter engine may also be called an "inverse query engine." Unlike a  
20            database, wherein an input query is tried against a collection of data records, an  
21            inverse query engine tries an input against a collection of queries. Each query  
22            includes one or more conditions, or rules, that must be satisfied by an input for the  
23            query to evaluate to true against the input.

24            A collection of queries usually takes the form of one or more filter tables  
25            that may contain hundreds or thousands of queries, and each query may contain